

IV.—*Notes on the State of the Arts of Cotton Spinning, Weaving, Printing, and Dyeing in Nepál. By Dr. A. CAMPBELL, attached to the Residency.*

[Read at the Meeting of the 2nd December.]

It may safely be asserted, that the arts generally in Nepál have not hitherto arrived at any degree of advancement, beyond that attained in the plains of India. In regard of those which have attained to considerable perfection below, Nepál is extremely backward in the progress made by her people, nor do I know of any in which the Nipálese can be said to excel their Hindu brethren of India, except the useful one of agriculture, to which may be added, perhaps, brick and tile making; and, in more recent days, the manufacture of flint-lock fire arms.

In the art of weaving, it is universally admitted, that neither the Egyptians of the olden, nor the nations of Europe in the modern, time have equalled, or do excel, the Hindus of Dacca and Benares; while this art in Nipál, is still at the very lowest possible grade of advancement. It is matter of curiosity, as well as of astonishment, that although the Newárs claim, and not improbably hold, a title to considerable antiquity as a united people*, and have made great advances in husbandry, some progress in literature and architecture, they have not got up to this day, beyond the threshold of civilization in that art, which, among the rudest nations, has been found in a state of much efficiency†.

Some one of the Roman philosophers, I have read, gave credit to SEMIRAMIS, for the invention of weaving cotton; and MINERVA herself, was, I believe, an enthusiast, and proficient in the labour of the loom. Our Nipálese queens of the present day are too proud of their Rajput, or “Moon-born lineage‡,” to indulge in the practice of the useful arts. And the goddesses, although abundant as the grains of sand on the sea shore, are now but images of the olden personifications; consequently, the weaving art has not descended to the modern representatives of the above-named ladies; but still cleaving to the sex, as a pastime, or profession, we find it confined solely to the women, among the Newárs. The men toil at other labours, but they weave not, “neither do they spin.” Weaving is scarcely a trade in the valley of

* See Mr. HODSON'S *Legends of the Origin of this Tribe in the Asiatic Journal.*

† The Mexicans, at the time of the conquest of their country by the Spaniards, had manufactures of cotton cloth in considerable perfection—“of cotton they made large webs, and as delicate and fine as those of Holland.”

‡ Chandra Vansa.

Nepál, for all the Newár women, of the poorer classes, (and there are scarcely any others now,) weave the cotton cloths required for the consumption of themselves and families.

These fabrics of domestic manufacture are all of cotton, and of the coarsest and most inelegant description. The cotton is grown in abundance throughout the hottest valleys of the Nipálese hills, and in the Taraï skirting their plainward face. It is brought on men's shoulders*, as picked, with the seeds in it, to the different towns of the valley, where it is exchanged to shop-keepers, for money, or other produce, as the case may be; and thus each family, as its means will admit of, purchases, from time to time, so many pounds of the raw material as suffices for the employment at the cleaning machine and spinning wheel of the mother and her daughters.

The cotton is separated from the seeds by the women, either with the fingers, or by the help of a most primitive contrivance, of the following description, and called *Keko*. Two rollers of wood, the thickness of a walking stick, and close together, are placed in an upright frame, and made to revolve on one another by means of a handle attached (through one side of the frame) to the lower of them. The operator, sitting on the ground, places the frame between her feet, steadying it with her toes, and applies small portions of cotton to the spaces between the rollers with her left hand, while she plies the revolving handle with the right: in this manner the cotton is drawn between the rollers; the seeds, being too large for the interspace, are separated and left behind.

The spinning is equally primitive, but its mode not easily described. The machine† is small, and easily portable, even by a child of six years old; it is not raised from the ground by means of legs, as is the domestic one of the Scottish Highlanders, and Northern Irish, (the ones I am best acquainted with;) nor is the wheel set in motion by the pressure of the foot on a board connected by a thong of leather, with a lever or cramp fixed to its axle, as is common in turning grind-stones, or turning lathe-wheels; but, the spinner, as in the cotton-cleaning process, sits on the ground, with one hand turning

* Man is the only animal of burden employed in the valley of Nepál, as well as the interior of her hills—a circumstance of itself strongly pointing out, how short a way the inhabitants have advanced beyond sheer barbarism. The uneven surface of their country is scarcely sufficient to save them from this imputation. The rulers of the land drive English carriages, while the transport of every article in their dominions is made on men and women's backs—a good specimen of eastern pomp, associated with its common accompaniment, hard-worked poverty.

† Called *Yeáú* by the Newárs.

the wheel by means of a handle, and with the other, drawing out the cotton into thread.

An iron rod is attached by means of a string to the wheel, and revolves in company with it, on which the thread, as spun, is collected, and in this manner, women and girls of all ages employ themselves, when not assisting at sowing or reaping, either in front of their dwellings, in the towns, or at the road-side, as may best suit their convenience*. The spinning wheel may be best described by saying, that it is but the ancient distaff, improved by the addition of a wheel for keeping it in motion; for the sharp-pointed iron rod, to the extremity of which the cotton is applied, and by which it is spun into thread, is precisely the spike of the distaff, and like its prototype, serves the double purpose of a bobbin on which the thread is accumulated as spun. The spinner turns the wheel from left to right while forming the thread, and to allow the portion spun to be accumulated on the iron rod, gives the wheel a small turn in the opposite direction, at the same time, lowering her left hand, so as to permit the winding-up of the thread. This necessary interruption in the spinning process, is a great drawback on the time of the spinner, and renders the distaff wheel very inferior, when compared to the common one of Europe. When tending cattle, or watching their ripe crops, the females generally wile away the time, and assist in replenishing the family wardrobe by spinning or weaving in the open air.

Having thus imperfectly spun the yarn, we proceed naturally to the warping and weaving of it, both of which processes are performed exclusively by women, with the very simplest and rudest machinery, equalled by the coarsest and most ungainly produce. The ordinary breadth of the Nipál cotton cloths is about half a yard, and rarely exceeds two feet. The average length of the webs is from 6 to 12 and 14 yards, and the texture of the finest is not superior to the *dosúti* cloth of Hindustán, used for house canopies (*chhats*) and floor cloths.

When a *Newár* woman has spun a sufficient quantity of thread for the warp of a web, she winds it off the iron rod, on which it has been spun, into (or, on) large bobbins of about nine inches long, and fit to hold three or four pounds of thread.

With these large bobbins, and a few reeds, about three feet long, she repairs to the nearest grassy spot without her viilage, or to the side of the causeway, if unpaved, and there, sticking the reeds in the ground,

* The universality of the spinning wheel may be readily credited, on the announcement of a custom which enjoins every *Newár* parent to present his newly married daughter with a *Peáú* and *Keko* in addition to her dowry.

(a few feet asunder,) to the length of her purposed web, she has prepared the only warping frame known throughout these regions.

Tying the thread to the reed on her extreme right, she moves rapidly up and down along the line, passing the thread (as it comes off the bobbin, revolving on a shaft passed through its axle, and held in her right hand), on alternate sides of each reed, until the "warp is laid."

The dexterity acquired by the women, in warping, is considerable, and the quickness with which they entwine the thread, with the warping reeds, is remarkable; and apparently, it is executed with little trouble. I have often seen those women moving up and down, and laying the warp regularly on the frame, at a fast walk, and all the while talking and laughing with the persons present, and assisting them in the performance of their task.

Having "laid the warp," the reeds (or rods of wood, as the case may be), are pulled out of the ground, and the warp, frame and all, is rolled up and carried home. All the cloths made in the valley are of uncoloured thread, which renders the warping a much easier affair than when striped webs are to be laid down.

When leisure offers for weaving the web, the women on a sunshining day spread out the warp (the warping sticks still in it) and apply with a brush, made of a suitable kind of grass, the paste necessary for smoothing the thread preparatory to putting the web in the loom.

The mode of weaving does not essentially differ from that practised in the uncivilized portions of our own country with which I am acquainted. The weaver sitting on a bench, with the loom in front of her, plies the shuttle alternately with either hand, pulling forward the swinging apparatus for laying the woof thread, close to its predecessor, and plies the treddles with her feet*. The weaving is carried on under a shed, within a small verandah, or in the house; and as the roofs are generally low, the treddles are made to play in a hollow dug in the earthen floor under the loom. The loom is made of the commonest materials, and very clumsily put together, and is altogether of a piece with the poor state of the weaving art. Lest it should be thought that it is intended to connect the wretched produce of the Nepál looms, with the rudeness of the machinery, as inevitable cause and

* This portion of the loom is extremely rude and primitive; instead of foot-boards moving on a fixed point, to be depressed alternately, so as to make one layer of the warp threads cross the other, and thus incorporate the woof with it, we find two small buttons suspended from the lower margin of the netting, which the weaver seizes between her great and first toe, alternately depressing each foot as the woof thread is delivered by the shuttle.

effect, I may mention that the Nepál loom, and the arrangements of the weaver, are superior in some respects to those of the unrivalled manufactures of the Dacca muslin. MILL's account of the Hindu loom corroborates this; he says, "It consists of little else than a few sticks or pieces of wood, nearly in the state in which nature produced them, connected together by the rudest contrivances. There is not so much as an expedient for rolling up the warp." The weaver is therefore obliged to work in the open air, as his house could not contain him and his web at full length; "and every return of inclement weather interrupts him." The Nepál weaver rolls up the warp on its original frame, and ties it to a peg driven in the ground close to her feet, while a cross beam in front of her receives the web as it is woven*.

The Thibet woollen cloths are of infinitely superior workmanship to the cotton ones of Nepál, and indeed, are of very fine make and material, although deficient in width. It is therefore evident that in the earliest of the arts, one which must have been practised by all human societies, so soon as leaves and skins were deemed unfitting clothing, the Nipálese have been left far behind, by the Hindus of India on one hand, and by the Tartars of Bhote on the other.

Dyeing and printing come naturally enough to notice, after spinning and weaving; and the advancement made in these arts has kept an even pace with that in the former. As dyesters the Newárs are miserable artists; they cannot at this day dye a decent blue, although furnished with indigo for the purpose.

A dirty red (from madder) and a light fading green, are the colours most commonly dyed by them; but they are not *fast* and durable, nor elegant when fresh. The only tolerably good dyeing done in Nepál, is by some Cashmírís, and people from the plains.

The coarse cloths of the country are printed, in imitation of the chintzes of India and Europe, and are much worn by all classes of females, who cannot afford to purchase better stuffs; but the imitations are very badly executed, and the colours not durable. The best Nipálese chintz is printed and dyed at Bhatgaon, in the valley; and in the hills east of the valley, at a place called Dunkutuah. In the small valley of Punouti too, about 24 miles east of Kathmandu, this trade is carried to some extent, and with nearly similar success.

* The different parts of the loom are not connected so as to form one complete machine. For instance, the swinging beam and netting are generally suspended from the roof of the house.

In the commonest European loom, the bench on which the weaver sits, the beam on which the cloth is received, as well as that on which the warp is rolled, together with the swinging beam and netting, are all joined together.

A piece of best Parbattiah chintz $5\frac{1}{2}$ yards long, sufficient to make an entire dress for a woman, costs at Kathmandu 1-8-0 Nipálese rupees*.

The subjoined list of the cotton piece goods manufactured in the valley and neighbouring hills, of which specimens are now presented, may not be useless to the public, while it will tend in some degree to give practical illustration to the above remarks. As a mode of attempting to estimate the real value of these products, and to assist in throwing light on the condition of the people who make and use them, the value of money, in regard to the staff of life, may be conveniently recorded †, especially as in Nepál, as well as India, the craftsman does not, generally speaking, earn any thing in addition to the common wages of agricultural labour, or in other words, little more than suffices to fill his belly, and that of a wife and children, with plain rice, and a few spices, and to buy the raw cotton, for the manufacture of his, and their coarse clothing. Models of the spinning wheel, and cotton cleaning machine, accompany the specimens of cloth.

List of the principal cotton piece goods Manufactured in Nepál proper, and throughout the Hills; to which is added a notice of the Bhungara, or Canvas made from the inner bark of trees, and the few coarse woollens of the neighbouring hills ‡.

<i>Names by which known in the Bazar.</i>	<i>Remarks.</i>
1. <i>Changa</i> .—	Manufactured in almost every Newár's house throughout the valley, and generally in the hills. Is coarse, hard and thin in texture. Is for the most part in webs of 10, 12, to 14 yards long, and 18 inches broad, and ranges in the Kathmandu bazar, from one rupee to 1-4-0 and 1-8-0 per piece.

* A Nipálese rupee equivalent to $12\frac{1}{2}$ annas of Company's currency.

† A full grown labouring man requires for a day's good food, $1\frac{1}{2}$ mannas of rice, and his wife, with (say as an average) three children, $1\frac{1}{2}$ mannas more, or in all three mannas.

The present price (November 1835) is 26 mannas, or nearly nine days' food per current rupee; to this, add salt, spices, and other condiments, worth one rupee more, and it will be seen that the wages of labour such as a man can live on in tolerable comfort, must be about four current rupees per month, and this without any allowance for clothing, house or luxuries.

The lowest class of laborers, and artizans, in some parts of the valley, and throughout a great portion of the hills, cannot come at rice, as their ordinary food; but must be content with the coarser grains, such as murwa, bajra, kodu and Indian corn. Two current rupees per month suffice for their subsistence, and is about the price of their labour.

‡ The specimens here described are deposited in the Society's museum.